

Small Cap P&C Insurance

1Q21 Earnings Preview: 1Q Provides Attractive Entry Points; Post COVID Growth Outlooks to Be Key Focus

Despite the group's 1Q underperformance, our fundamental outlook remains positive, and we view recent trading levels as attractive entry points. We attribute the group's recent challenges to significant outperformance during 2020 (+122% vs. S&P 500's +16%, S&P Financial's -4% and JPM Index's -7%), the broader market's recent rotation into value stocks, top-line growth questions, and uncertainty regarding exposure to February snowstorms. That said, we expect momentum to return to growth names given the current low interest rate environment and current discounts for growth relative to historical averages. We also continue to expect our group to profitably expand market share in the near term, while benefiting from continued commercial lines pricing increases and a recovering post-COVID economic backdrop. Our forecasts anticipate that KNSL and PLMR will continue to generate industry-leading premium growth and margins. In addition, we expect GSHD to further strengthen a growing personal lines distribution platform that effectively serves policyholders according to their unique preferences.

- **Specialty Markets Remain Attractive; Winter Storm Uri Exposure Manageable.** We believe that KNSL and PLMR will continue to benefit from favorable market conditions in the small account, specialty niche space. Our forecasts expect both underwriters to continue generating industry-leading growth and profitability in the near term, even if premium growth rates moderate from 2020's historic levels. Separately, we believe that both underwriters will have manageable exposure to losses stemming from Winter Storm Uri, following sizeable catastrophe losses during 3Q20 and 4Q20.
- **Size Doesn't Matter. GSHD at the Forefront of Evolving Personal Lines Distribution Trends.** Although we anticipate that 2020's strong operating performance (bolstered by contingent commissions) could make y/y comparisons challenging in 2021, our fundamental view remains unchanged. We continue to favorably view GSHD's long-term outlook given its go-to-market strategy, value proposition to producers and its currently small market share of approximately \$360 billion of personal lines premiums. Furthermore, recent commentary from large industry incumbents suggests that GSHD has a head-start and formidable advantage in operating a distribution model that many will increasingly seek to emulate.
- **Small Cap P&C Valuation Premiums Poised to Recover.** The J.P. Morgan Commercial P&C Insurance Index is currently trading at 1.2x book value, slightly above the historical average of 1.1x. The recovery in valuations from 2020 lows reflects the recent market rotation into value versus growth, in addition to an improving economic backdrop and reduced COVID-related concerns. Specialty underwriters KNSL and PLMR continue to trade at premiums to their large cap peers at 6.5x and 4.7x book value, respectively. Although valuation premiums for the small cap underwriters have compressed significantly during 1Q21, we anticipate a gradual recovery, pending solid 1Q results.

See page 29 for analyst certification and important disclosures.

J.P. Morgan does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

P&C Insurance

Keith Cornelius AC

(1-212) 622-9517

keith.cornelius@jpmorgan.com

Bloomberg JPMA CORNELIUS <GO>

J.P. Morgan Securities LLC

Small Cap P&C 1Q21 Preview

Key Positives:

Trading softness offers entry point
Rate increases to persist in N-T
Profitably expanding market share

Key Questions:

Top-line growth trajectory
Catastrophe loss exposure

VISIT...

LANZAROTE
Caliente.COM

Equity Ratings and Price Targets

Company	Ticker	Mkt Cap (\$ mn)	Price (\$)	Rating		Price Target			
				Cur	Prev	Cur	End Date	Prev	End Date
Goosehead	GSHD US	3,938.90	107.18	OW	n/c	145.00	Dec-21	n/c	n/c
Kinsale	KNSL US	3,750.40	164.80	OW	n/c	230.00	Dec-21	n/c	n/c
Palomar	PLMR US	1,711.25	67.04	OW	n/c	120.00	Dec-21	n/c	n/c

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates. n/c = no change. All prices as of 31 Mar 21.

Table of Contents

Small Cap P&C Sector Outlook	5
1Q21 Small Cap P&C Earnings Preview	14
Goosehead	20
Kinsale	21
Palomar	22

Tables

Table 1: CIAB 4Q20 Commercial Pricing Increases	6
Table 2: CIAB Average 4Q20 Premium Pricing by Line of Business	6
Table 3: P&C Insurance Industry Quarterly Price Increases	7
Table 4: Market Trends: Lines Facing Increases, Decreases or a Mix	8
Table 5: P&C Insurance Personal Lines Market Share (2010-2020)	9
Table 6: 2020 Major U.S. Catastrophe Activity	10
Table 7: P&C Insurance 1Q21 Stock Performance	19
Table 9: GSHD 1Q20 Estimates	20
Table 10: KNSL 1Q21 Estimates	21
Table 11: PLMR 1Q21 Estimates	23

Figures

Figure 1: Average Commercial Premium Rate Changes by Account Size	7
Figure 2: Cumulative Quarterly Rate Increases by Account Size	7
Figure 3: PGR Personal Lines Annual Policy-In-Force Growth (2009 - 2020)	8
Figure 4: Homeowners Premium Mix by Distribution	10
Figure 5: Auto Premium Mix by Distribution	10
Figure 6: U.S. Top 10 Costliest Hurricanes	11
Figure 7: U.S. Top 10 Costliest Wildfires	11
Figure 8: J.P. Morgan Commercial P&C Insurance P/BV	12
Figure 9: J.P. Morgan Commercial P&C Insurance Index P/BV Relative to S&P Financials P/BV	12
Figure 10: KNSL Historical P/BV	12
Figure 11: PLMR Historical P/BV	12
Figure 12: Small Cap P&C/Insurtech Platform Comps	13
Figure 13: 1Q21 EPS Estimates	14
Figure 14: U.S. Winter Storm Insured Loss Trends (1980-2019)	14
Figure 15: January Notable Catastrophe Loss Events	15
Figure 16: Homeowners' Multi-Peril Market Share (Northwest)	15
Figure 17: Commercial Multi-Peril Market Share (Northwest)	15

Figure 18: Homeowners' Multi-Peril Market Share (California).....	16
Figure 19: Commercial Multi-Peril Market Share (California).....	16
Figure 20: Homeowners' Multi-Peril Market Share (NE, KS, IA, WI, IL).....	16
Figure 21: Commercial Multi-Peril Market Share (NE, KS, IA, WI, IL).....	16
Figure 22: February Notable Catastrophe Loss Events	16
Figure 23: Homeowners' Multi-Peril Market Share (Plains, SE, Mid-Atl., NW).....	17
Figure 24: Commercial Multi-Peril Market Share (Plains, SE, Mid-Atl., NW).....	17
Figure 25: Homeowners' Multi-Peril Market Share (Texas).....	17
Figure 26: Commercial Multi-Peril Market Share (Texas).....	17
Figure 27: Investment Portfolio Detail	18
Figure 28: 1Q21 Estimated Asset Class Performance	18

Small Cap P&C Sector Outlook

We maintain our positive outlook on the small cap P&C coverage group and believe that 2021 will continue to present our sector with attractive opportunities to generate superior revenue and earnings growth relative to their large cap peers. That said, throughout 1Q, PLMR (-25% y/y), KNSL (-18% y/y) and GSHD (-14% y/y) all struggled and underperformed the S&P Financials Index (+16% y/y), J.P. Morgan P&C Insurance Index (+7% y/y) and S&P 500 Index (+6% y/y) by a significant margin. Despite this, we expect for performance to recover during 2021, reflecting the continued benefit of market share gains, strong profitability at industry-leading growth rates and a continued tailwind from further rate increases in commercial lines. We also believe that KNSL and PLMR will continue to be well-insulated from potential underwriting tail risks associated with COVID-19 claims exposure while also taking advantage of favorable commercial lines pricing trends. Additionally, we forecast GSHD to continue benefitting from favorable personal lines distribution trends that favor independent agency channels and direct distribution models relative to captive agency channels.

Specialty Carriers Continue to Benefit from Favorable Rates

We anticipate that favorable pricing trends will continue to drive strong near-term premium growth for KNSL and PLMR. Many of the factors that have contributed to recent commercial lines rate increases such as sweeping industry repricing initiatives, moderating industry reserves, capital conservatism in light of COVID-related claims uncertainty, the low interest rate environment and a challenging tort landscape are expected to persist in the near term. Consequently, we believe that the current favorable pricing environment is sustainable in the near term, and we expect management teams to support this outlook during their upcoming earnings conference calls.

E&S Market Continues to Offer Outsized Growth Opportunities

Global commercial underwriters with significant market share such as Zurich and AIG are increasingly tightening their policy wording and rejecting brokers' generic policy manuscripts.¹ In addition, these same global carriers are also directing their underwriters to move policies from the admitted market to the E&S market against the backdrop of shrinking E&S capacity.² These factors are expected to drive continued near-term price increases in the E&S market, while also presenting attractive growth opportunities for carriers with an E&S focus such as KNSL and PLMR.

Premium growth at KNSL, an exclusive E&S underwriter with a casualty focus, has been a significant beneficiary of this trend over the past two years. In 2020, KNSL raised roughly \$60 million in an effort to fortify its capital base to take advantage of attractive growth opportunities in the E&S market. PLMR's management team identified similar growth opportunities to leverage their specialty property expertise in the E&S space and raised roughly \$80 million to launch their new E&S platform.

¹ "US property carriers tighten underwriting criteria". Jones, John Hewitt. *The Insurance Insider*. Sep. 2, 2020.

² Ibid.

Pricing Data Continues to Highlight Strong Rate Increases

While some have speculated that the current COVID crisis could spark more competitive industry pricing dynamics among underwriters in an attempt to support retention and sustain market share leadership, we believe COVID claims uncertainty and recent concerns about underwriting pandemic risk will only serve to reaffirm management teams' discipline and commitment to offering adequately priced risk products. Furthermore, the prolonged low interest rate environment should also serve to sustain carriers' commitment to disciplined pricing for the foreseeable future. Recent industry pricing surveys continue to demonstrate that underwriters are successfully sustaining upward pricing momentum, despite protests from some clients.

Table 1: CIAB 4Q20 Commercial Pricing Increases

	Account Size			
	Small	Medium	Large	Average
Fourth Quarter 2020	6.7%	11.7%	13.7%	10.7%
Third Quarter 2020	7.1%	12.7%	15.3%	11.7%
Second Quarter 2020	7.3%	11.0%	14.2%	10.8%
First Quarter 2020	5.5%	9.8%	12.6%	9.3%
Fourth Quarter 2019	5.2%	8.0%	9.4%	7.5%
High	20.8%	31.7%	33.0%	28.5%
<i>High Date</i>	4Q01	4Q01	4Q01	
Low	-10.0%	-15.0%	-15.9%	-13.6%
<i>Low Date</i>	1Q08	3Q17	3Q17	

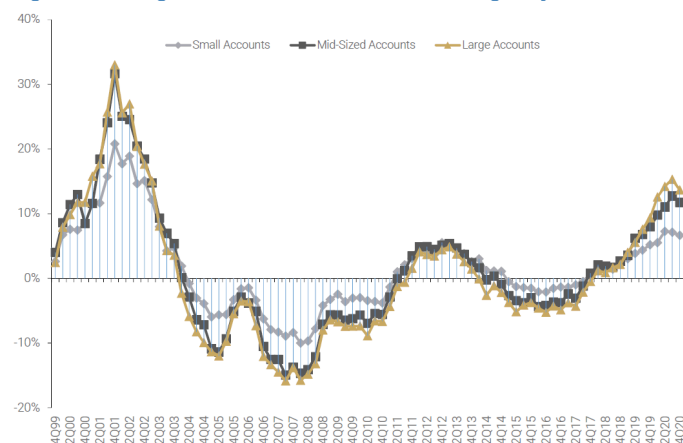
Source: The Council of Insurance Agents & Brokers.

Table 2: CIAB Average 4Q20 Premium Pricing by Line of Business

	Line of Business					Average
	Comm'l Auto	Workers' Comp	Comm. Prop.	Gen'l Liability	Umbrella	
Fourth Quarter 2020	9.1%	0.4%	12.9%	7.3%	21.3%	10.2%
Third Quarter 2020	11.0%	1.5%	14.2%	6.7%	22.9%	11.3%
Second Quarter 2020	9.6%	0.7%	13.3%	6.8%	20.0%	10.1%
First Quarter 2020	9.6%	-1.2%	12.0%	5.7%	17.3%	8.7%
Fourth Quarter 2019	10.5%	-1.9%	9.7%	5.8%	13.6%	7.6%
High	28.6%	24.9%	45.4%	26.0%	51.9%	35.3%
Low	-11.6%	-12.3%	-15.0%	-13.6%	-13.5%	-13.2%

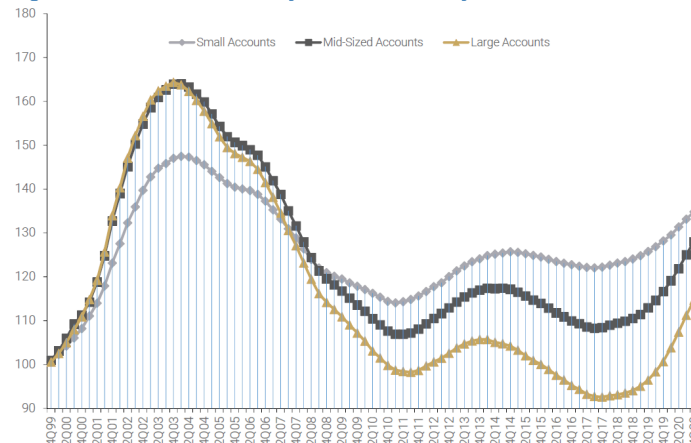
Source: The Council of Insurance Agents & Brokers.

Figure 1: Average Commercial Premium Rate Changes by Account Size



Source: The Council of Insurance Agents & Brokers.

Figure 2: Cumulative Quarterly Rate Increases by Account Size



Source: The Council of Insurance Agents & Brokers.

Rate increases accelerated in 2020, while many carriers were in capital preservation mode due to COVID uncertainty and economic contraction. Low interest rates have also contributed to higher prices because it has imposed underwriting discipline on carriers as a necessity to offset weak contributions from net investment income. Similarly, most re/insurers, including Scor, Munich Re, RenRe, AIG, and Chubb, have become even more constructive on pricing in recent months.³⁴ In our view, property cat prices will continue to harden over the next year as re/insurers attempt to bolster returns following record losses, both from weather-related events as well as from COVID-19.

Commercial pricing surveys such as MarketScout, Marsh's Global Insurance Market Index, and Willis Towers Watson Commercial Lines Insurance Pricing Survey (CLIPS) continue to demonstrate solid pricing trends across most products lines. Even product lines such as workers' comp, which have struggled through a prolonged soft market, benefitted from slight price increases during CIAB's 4Q20 survey for the third consecutive quarter. We also believe that TRV's 1Q21 quarterly disclosure for renewal rate change on domestic business insurance will continue to demonstrate sustained industrywide pricing improvements.

Table 3: P&C Insurance Industry Quarterly Price Increases

Industry Pricing Source	4Q19	1Q20	2Q20	3Q20	4Q20
Travelers	5%	6%	7%	8%	8%
MarketScout	5%	5%	5%	6%	7%
Marsh's Global Insurance Market Index	11%	14%	19%	20%	22%
Willis Towers Watson CLIPS	over +6%	over +6%	almost +10%	almost +10%	above +10%

Source: Travelers, MarketScout, Marsh and Willis Towers Watson.

³ "Scor predicts 'long-lasting' P&C rate hardening as Covid drives demand". *The Insurance Insider*. Sept. 9, 2020.

⁴ "Daily: Welcome to the Mont-E Carlo spin room". *The Insurance Insider*. Sept. 9, 2020.

The below Willis Re data also highlights how the percentage of product lines benefiting from price increases has accelerated since 2018.

Table 4: Market Trends: Lines Facing Increases, Decreases or a Mix

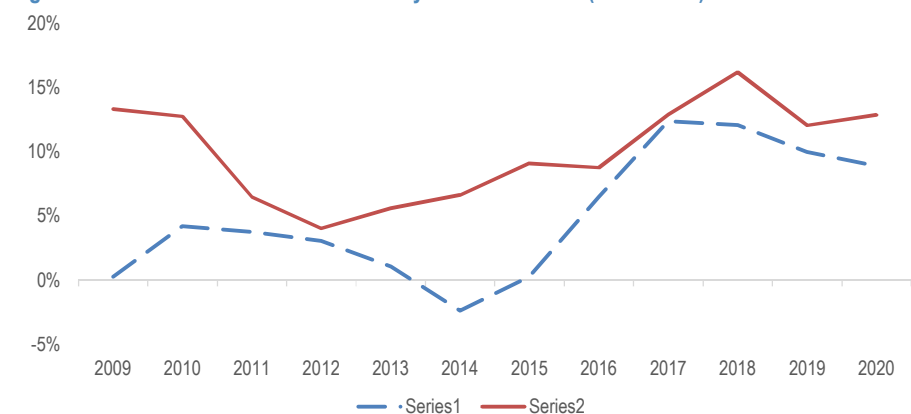
Time Period	Decreases	%	Increases	%	Mix/Flat	%
2021	0	0%	29	97%	1	3%
Spring 2020	0	0%	23	82%	5	18%
2020	2	7%	20	74%	5	19%
Spring 2019	2	8%	14	56%	9	36%
2019	2	8%	14	56%	9	36%
Spring 2018	2	9%	10	45%	10	45%
2018	7	30%	7	30%	9	39%
Spring 2017	10	43%	6	26%	7	30%
2017	10	43%	6	26%	7	30%
Spring 2016	9	41%	8	36%	5	23%

Source: Willis Re.

Personal Lines Platforms Must Offer Flexibility & Efficiency

We believe that personal lines insurance distribution models will continue to become less reliant on captive agencies in favor of distribution models that offer customers diverse product choice, convenient accessibility and quality customer service. In 2015, Progressive acquired homeowners' underwriter ASI, which bolstered the company's ability to offer bundled products to its customers while also expanding its presence in the independent agency channel. This acquisition dramatically accelerated Agency PIF growth and has been instrumental to Progressive's ability to sustain industry-leading premium growth among the bellwether personal lines carriers.

Figure 3: PGR Personal Lines Annual Policy-In-Force Growth (2009 - 2020)



Source: Company reports.

In 2018, Nationwide announced its plan to shift to an independent agency model, thereby forcing nearly 2,000 existing captive agents to transition to independent agents. Nationwide completed this transition to an independent agency model in 2020 with approximately 99% of the company's previously captive agents also

joining Nationwide's independent agency channel. Similarly, Allstate recently closed its \$4 billion acquisition of National General Holdings in January. Allstate intends to leverage National General's expansive network of over 42,000 independent agents to bolster its market presence in the independent agency channel.

Over the past decade, captive personal lines carriers have seen their market share gradually erode to growth in the direct and independent agency channel as customers increasingly demonstrate their preference for product choice and convenience.

Table 5: P&C Insurance Personal Lines Market Share (2010-2020)

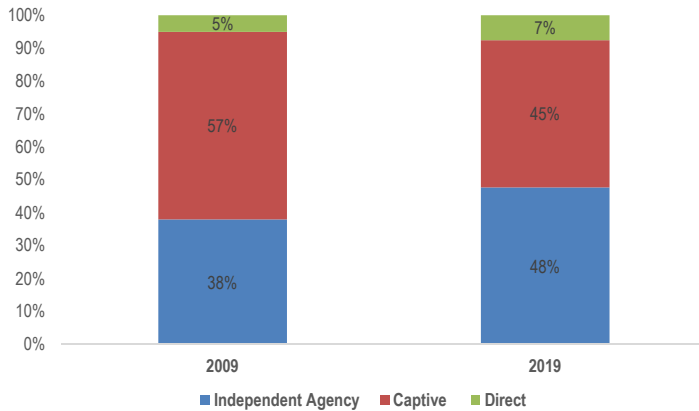
2020 Personal Lines Premiums = \$361 billion

2020 Rank	Company	Primary Channel	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	State Farm	Captive	18.2%	18.2%	18.0%	18.1%	18.3%	18.5%	18.4%	18.2%	17.2%	16.3%	16.3%
2	GEICO / Berkshire	Direct	8.8%	9.4%	9.9%	10.5%	11.0%	11.6%	12.1%	12.9%	13.5%	13.9%	13.7%
3	Progressive	Direct	7.8%	8.1%	8.4%	8.5%	8.8%	8.8%	9.2%	9.9%	11.0%	12.3%	13.4%
4	Allstate	Captive	11.9%	11.6%	11.3%	11.1%	11.1%	11.1%	10.8%	10.5%	10.5%	10.6%	10.4%
5	USAA	Direct	4.4%	4.6%	4.9%	5.1%	5.2%	5.3%	5.5%	5.7%	5.9%	6.0%	6.4%
6	Liberty Mutual	Indep.	4.6%	4.6%	4.8%	5.0%	5.0%	5.0%	5.0%	5.0%	4.8%	4.6%	4.8%
7	Farmers Insurance	Captive	6.0%	6.0%	5.9%	5.5%	5.1%	5.0%	4.8%	4.5%	4.3%	4.2%	4.0%
8	Nationwide	Indep.	4.4%	4.2%	4.1%	4.0%	3.9%	3.8%	3.6%	3.2%	2.7%	2.5%	2.3%
9	American Family Insurance	Hybrid	2.6%	2.5%	2.4%	2.4%	2.3%	2.3%	2.3%	2.3%	2.4%	2.3%	2.1%
10	Travelers	Indep.	2.1%	2.1%	2.0%	1.8%	1.7%	1.7%	1.8%	1.9%	1.9%	1.9%	2.0%
Top 3			34.8%	35.6%	36.2%	37.0%	38.1%	38.8%	39.7%	41.0%	41.7%	42.4%	43.4%
Companies ranked 4-10			36.0%	35.6%	35.4%	34.8%	34.3%	34.1%	33.8%	33.1%	32.4%	32.0%	32.0%
Top 10			70.8%	71.2%	71.6%	71.9%	72.4%	72.9%	73.5%	74.1%	74.1%	74.4%	75.3%

Source: SNL Financial. *Nationwide transitioned to an independent agency model from 2018-2020.

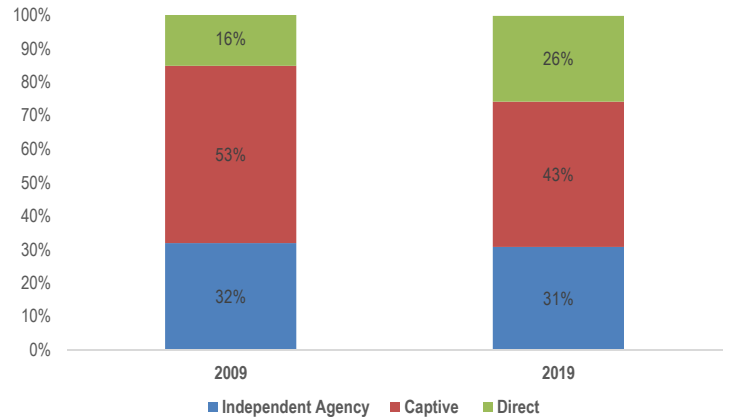
Although direct carriers have played a significant role in the recent decline of captive agency market share, growth in the independent agency channel has also impacted captive agency market share over the past decade, especially in homeowners' insurance.

Figure 4: Homeowners Premium Mix by Distribution



Source: Independent Insurance Agents & Brokers of America.

Figure 5: Auto Premium Mix by Distribution



Source: Source: Independent Insurance Agents & Brokers of America.

We believe that GSHD remains well positioned to take advantages of these secular trends within personal insurance lines with a go-to-market strategy that heavily leverages the homeowners' insurance product. Additionally, partnerships with high growth direct carriers such as Progressive (GSHD is #1 client partner) should continue to grant GSHD access to high growth markets, which will help the company sustain industry leading organic growth rates.

Catastrophe Exposure Poses Long-Term Risk

2020 was a record setting year for catastrophe activity in the United States. The 2020 hurricane season produced 30 named storms and 13 of these named storms ultimately became hurricanes. Furthermore, the year also set a record for named storms or hurricanes that made landfall in the continental United States with 11. Separately, wildfires continue to plague the West Coast and catastrophe modeling firm RMS estimated that industry insured losses from West Coast wildfires ranged between \$7 billion and \$13 billion.

Table 6: 2020 Major U.S. Catastrophe Activity

Event	Estimated Insured Loss
Midwest Derecho	\$5bn - \$10bn (property ~ \$5bn)
Hurricane Isaias	\$3bn - \$5bn
West coast wildfires	\$7bn - \$13bn
Hurricane Laura	\$10bn
Hurricane Sally	\$1bn - \$3.5bn

Source: The Insurance Insider, RMS.

2020 followed the trend of increasingly more frequent and severe catastrophe activity, a reversal from 2019's benign catastrophe losses and more in line with 2017 and 2018 catastrophe activity, which represented the industry's costliest back-to-back years for insured losses (\$225 billion for 2017 and 2018 combined).

Figure 6: U.S. Top 10 Costliest Hurricanes

\$ in billions

Rank	Date	Location	Hurricane	Est. Insured Losses	In 2019 Dollars
1	Aug. 25-30, 2005	AL, FL, GA, LA, MS, TN	Katrina	\$41.1	\$52.8
2	Sep. 19-22, 2017	PR, USVI	Maria	\$25.0 - \$30.0	\$26.1 - \$31.3
3	Sep. 6-12, 2017	AL, FL, GA, NC, PR, SC, UV	Irma	\$25.0 - \$30.0	\$26.1 - \$31.3
4	Aug. 25-Sep. 1, 2017	AL, LA, MS, NC, TN, TX	Harvey	\$18.0 - \$20.0	\$18.8 - \$20.8
5	Oct. 28-31, 2012	CT, DC, DE, MA, MD, ME, NC, NH, NJ, NY, OH, PA, RI, VA, VT, WV	Sandy	\$18.8	\$21.1
6	Aug. 24-26, 1992	FL, LA	Andrew	\$15.5	\$25.9
7	Sep. 12-14, 2008	AR, IL, IN, KY, LA, MO, OH, PA, TX	Ike	\$12.5	\$20.9
8	Oct. 10-12, 2018	AL, FL, GA, MD, NC, SC, VA	Michael	\$9.0 - \$12.0	\$9.2 - \$12.2
9	Oct. 24, 2005	FL	Wilma	\$10.3	\$13.2
10	Aug. 13-14, 2004	FL, NC, SC	Charley	\$7.5	\$9.9

Source: Insurance Information Institute.

Figure 7: U.S. Top 10 Costliest Wildfires

\$ in billions, based on insured damages

Rank	Date	Location	Estimated Insured Losses	In 2019 Dollars
1	Nov. 8-25, 2018	Camp Fire, CA	\$8.5 - \$10.5	\$8.7 - \$10.7
2	Oct. 8-20, 2017	Tubbs Fire, CA	\$7.5 - \$9.7	\$7.8 - \$10.1
3	Nov. 8-22, 2018	Woolsey Fire, CA	\$3.0 - \$5.0	\$3.1 - \$5.1
4	Oct. 8-20, 2017	Atlas Fire, CA	\$2.5 - \$4.5	\$2.6 - \$4.7
5	Dec 4-23, 2017	Thomas Fire, CA	\$1.5 - \$3.5	\$1.6 - \$3.6
6	Oct. 20-21, 1991	Oakland Hills Fire, CA	\$1.7	\$2.9
7	Oct. 21-24, 2007	Witch Fire, CA	\$1.3	\$1.6
8	Jul. 23-Aug. 30, 2018	Carr Fire, CA	\$1.0 - \$1.5	\$1.0 - \$1.5
9	Oct. 25-Nov. 4, 2003	Cedar Fire, CA	\$1.1	\$1.4
10	Oct. 25-Nov. 3, 2003	Old Fire, CA	\$1.0	\$1.3

Source: Insurance Information Institute.

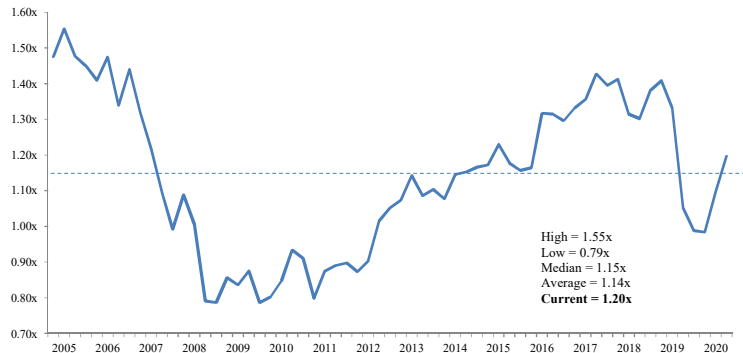
KNSL and PLMR both had significant exposure to catastrophe losses during 2H20 that caught many investors by surprise and subsequently resulted in heavy sell-offs. KNSL recorded \$16.7 million (15.4 CR pts) and \$6.1 million (5.1 CR pts) of cat losses in 3Q and 4Q, respectively. Similarly, PLMR announced catastrophe losses of \$36.5 million (86.9 CR pts) and \$14.5 million (37.2 CR pts) during 3Q and 4Q, respectively. The majority of both underwriters' catastrophe losses were caused by exposure to Hurricanes Hanna, Isaias, Laura, Sally and Beta. In order to sustain the market's confidence and valuation levels, both firms will need to demonstrate effective management of their catastrophe risks going forward, especially as both carriers attempt to sustain industry-leading premium growth and take advantage of favorable specialty lines pricing.

Small Cap Valuation Premiums to Recover

The J.P. Morgan Commercial P&C Insurance Index is currently trading at 1.2x book value, slightly above the historical average of 1.1x. The recovery in valuations from

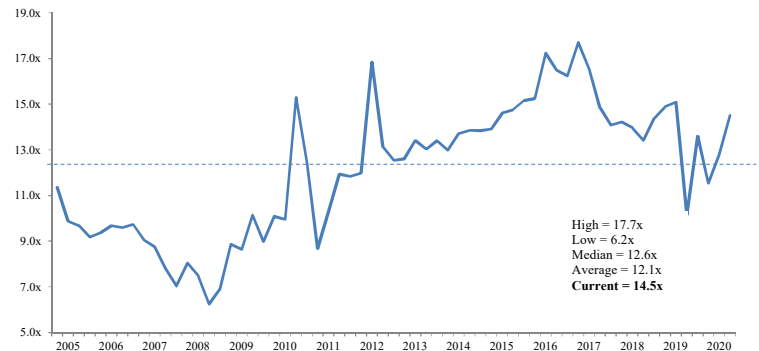
2020 lows reflects the recent market rotation into value versus growth, in addition to an improving economic backdrop and reduced COVID-related concerns.

Figure 8: J.P. Morgan Commercial P&C Insurance P/BV



Source: J.P. Morgan estimates, Bloomberg Finance L.P.

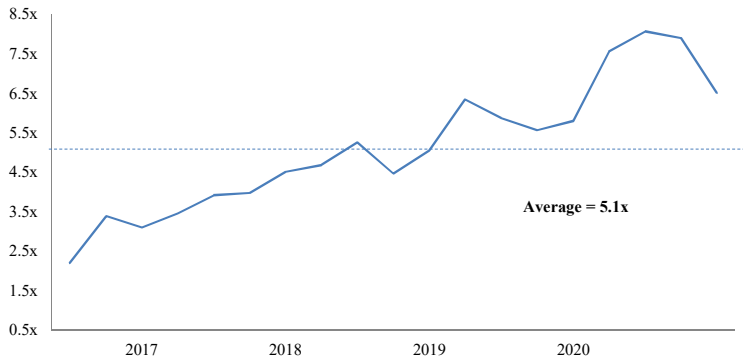
Figure 9: J.P. Morgan Commercial P&C Insurance Index P/BV Relative to S&P Financials P/BV



Source: J.P. Morgan estimates, Bloomberg Finance L.P.

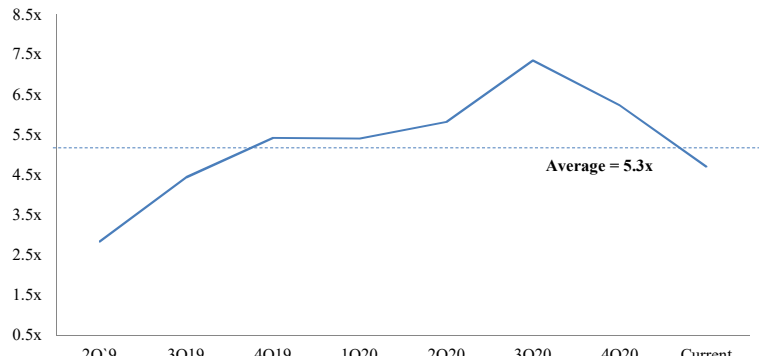
Specialty underwriters KNSL and PLMR continue to trade at premiums to their large cap peers at 6.5x and 4.7x book value, respectively. Although valuation premiums for the small cap underwriters have compressed significantly during 1Q21, we anticipate a gradual recovery, pending solid 1Q results.

Figure 10: KNSL Historical P/BV



Source: J.P. Morgan estimates, Bloomberg Finance L.P.

Figure 11: PLMR Historical P/BV



Source: J.P. Morgan estimates, Bloomberg Finance L.P.

Small Cap P&C/Insurtech Platform Valuations

Over the past year, we've seen the emergence of high growth, tech enabled personal lines insurance platforms, including Lemonade (LMND: Not Covered), Root (ROOT: Not Covered) and Metromile (MILE: Not Covered). These companies trade at significant valuation premiums relative to their incumbent underwriting and brokerage peers, reflecting industry-leading growth rates and market expectations for sustained high growth.

We think it's useful for investors to also compare our small cap, high growth underwriters and brokers within the context of new emerging Insurtech platforms, in addition to the bellwether commercial underwriters and global brokerages that they are also often evaluated against.

Figure 12: Small Cap P&C/Insurtech Platform Comps

Company Name	Ticker	Rating	Curr. Px	Mkt. Cap (\$bn)	Dividend Yield	Operating EPS		P/E		ROE		P/BV		P/TBV
			3/31/2021			21e	22e	21e	22e	21e	22e	4Q20	21e	4Q20
Specialty Underwriters														
Kinsale Capital	KNSL	OW	\$164.80	\$3.8	0.2%	\$3.75	\$4.25	43.9x	38.8x	14%	14%	6.5x	5.7x	6.5x
Palomar Specialty	PLMR	OW	\$67.04	\$1.7	0.0%	\$2.45	\$3.05	27.3x	22.0x	16%	18%	4.7x	4.1x	4.9x
Argo Group	ARGO	NC	\$50.32	\$1.7	2.5%	\$2.97	\$4.17	16.9x	12.1x	6%	7%	1.0x	0.9x	1.1x
James River Group	JRVR	NC	\$45.62	\$1.4	2.6%	\$2.56	\$2.98	17.8x	15.3x	10%	11%	1.8x	1.7x	2.4x
RLI Corp.	RLI	NC	\$111.57	\$5.0	0.8%	\$2.86	\$3.13	39.0x	35.7x	11%	11%	4.4x	4.1x	4.7x
Median					0.8%			27.3x	22.0x	11%	11%	4.4x	4.1x	4.7x
Average					1.2%			29.0x	24.8x	11%	12%	3.7x	3.3x	3.9x
								P/E		P/Sales		Sales Growth (Y/y %)		
								21e	22e	21e	22e	21e	22e	
Small Cap Personal Lines Brokers/InsurTech Platforms														
Goosehead Insurance	GSHD	OW	\$107.18	\$3.9	0.0%	\$0.80	\$1.30	134.2x	82.2x	25.8x	17.2x	30%	50%	
Lemonade	LMND	NC	\$93.13	\$5.7	0.0%	-\$3.19	-\$3.10	N/A	N/A	49.3x	31.4x	23%	57%	
Metromile	MILE	NC	\$10.29	\$1.3	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Root	ROOT	NC	\$12.73	\$3.2	0.0%	-\$1.99	-\$1.89	N/A	N/A	8.3x	4.9x	11%	68%	
Median					0.0%			134.2x	82.2x	25.8x	17.2x	23%	57%	
Average					0.0%			134.2x	82.2x	27.8x	17.8x	21%	59%	
Industry Benchmarks														
S&P 500			3,972.89		1.5%	\$172.98	\$199.38	23.0x	19.9x	2.8x	2.6x	8%	7%	
S&P 500 Financials			565.72		1.8%	\$36.83	\$41.00	15.4x	13.8x	2.6x	2.5x	-1%	4%	

Source: J.P. Morgan estimates, Bloomberg Finance L.P.

1Q21 Small Cap P&C Earnings Preview

Our forecasts project that the small cap P&C coverage group will report solid 1Q21 earnings, reflecting the ongoing benefit of pricing tailwinds to premium growth and solid underwriting margins. Although we expect many commercial and personal lines carriers to incur significant catastrophe losses from the February storms, we believe that underwriters such as KNSL and PLMR will have manageable exposure to Winter Storm Uri. We believe that most investors will remain focused on core margins, management teams' assessment of Jan. 1st renewals, and the outlook for pricing and growth over the next year. In addition, we expect CB's recent bid for HIG to ignite discussions around a possible uptick in industry M&A activity.

Figure 13: 1Q21 EPS Estimates

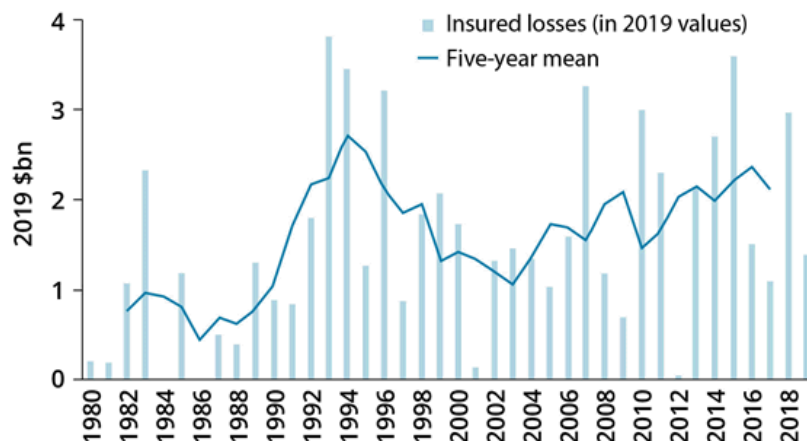
Company Name	Ticker	Rating	Curr. Px 3/31/2021	Price Target	Mkt. Cap (\$bn)	Old EPS 1Q21E	New EPS 1Q21E	Street EPS 1Q21E
Commercial P&C Insurers and Reinsurers								
Kinsale Capital	KNSL	OW	\$164.80	\$230	\$3.8	\$0.95	\$0.90	\$0.90
Palomar Holdings	PLMR	OW	\$67.04	\$120	\$1.7	\$0.60	\$0.55	\$0.52
Brokers								
Goosehead Insurance	GSHD	OW	\$107.18	\$145	\$3.9	\$0.10	\$0.05	\$0.08

Source: J.P. Morgan estimates, Bloomberg Finance L.P.

1Q21 Natural Catastrophe & Market Share Tracker

Our models project manageable 1Q21 catastrophe losses for KNSL and PLMR, stemming primarily from the February snowstorms. Ultimate insured losses from the events have been estimated to range between \$10 billion and \$20 billion, driven by burst pipes, electricity blackouts, gas pipeline failures, and business interruption claims. Some modeling firms and industry sources believe that insured losses from the February storms could approximate those from Hurricane Harvey in 2017, which totaled nearly \$30 billion.

Figure 14: U.S. Winter Storm Insured Loss Trends (1980-2019)



Source: Munich Re, Geo Risks Research, NatCatSERVICE.

The unique nature of the event, which had an outsized impact on Texas, has contributed to the wide range of loss estimates. Most industry sources expect remediation costs to be higher than normal, given the state's lack of experience with snowstorms. In addition, demand surge could be amplified by COVID-driven supply shortages and possibly add 30% to the storm's total loss calculation.⁵ Another factor driving uncertainty about loss projections is the fact that many industry models are not built to analyze and assess winter storm losses exceeding \$10 billion. As a result, overall industry insured loss estimates have varied widely, with Karen Clark & Company and AIR Worldwide estimating \$18 billion and \$10+ billion of insured losses, respectively. Similarly, representatives from the Texas Association of Public Insurance Adjusters indicated that the snowstorms could be a \$12+ billion event, with ultimate insured losses approaching \$20 billion after factoring in potential business interruption and non-property claims.⁶

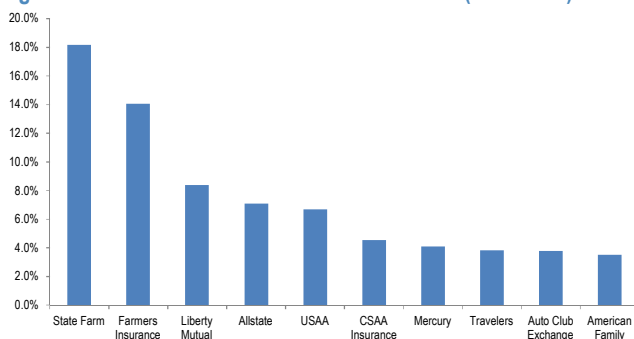
The majority of losses are likely to be concentrated in the commercial multi-peril (commercial property and business interruption) and homeowners' lines. Thus far, Allstate has preannounced \$577 million (~2% of 4Q20 book value) of February catastrophe losses, primarily reflecting exposure to the severe winter storms. On the other hand, Progressive announced roughly \$87 million (<1% of 4Q20 book value) of February catastrophe losses.

Figure 15: January Notable Catastrophe Loss Events

Date Range	Event Type	Location	Est. Economic Loss (\$)	Est. Insured Loss (\$)
Jan. 11th - Jan. 13th	Severe Weather	Northwest	\$525+ million	\$250+ million
Jan. 17th - Jan. 20th	Severe Weather	California	\$350+ million	\$175+ million
Jan. 24th - Jan. 27th	Severe Weather	Plains, Midwest, South	\$100+ million	N/A
Jan. 24th - Jan. 29th	Flooding	California	\$100+ million	N/A

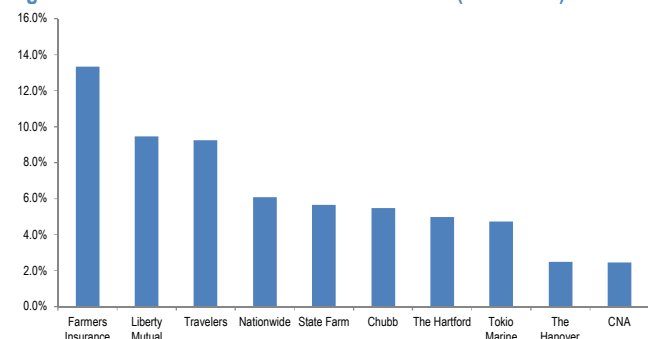
Source: Aon Benfield.

Figure 16: Homeowners' Multi-Peril Market Share (Northwest)



Source: SNL Financial.

Figure 17: Commercial Multi-Peril Market Share (Northwest)

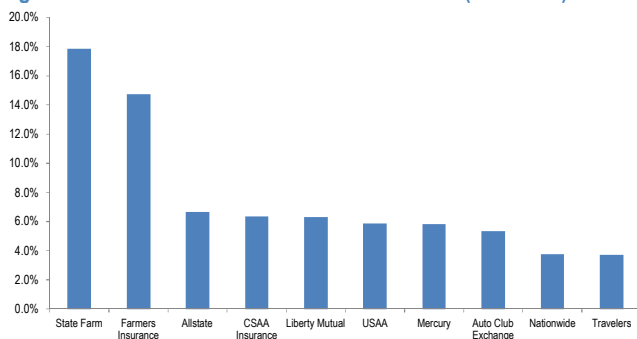


Source: SNL Financial.

⁵ "Texas Big Freeze: Why are the numbers so far apart?". Robertson, Fiona. *The Insurance Insider*. Feb. 26, 2021.

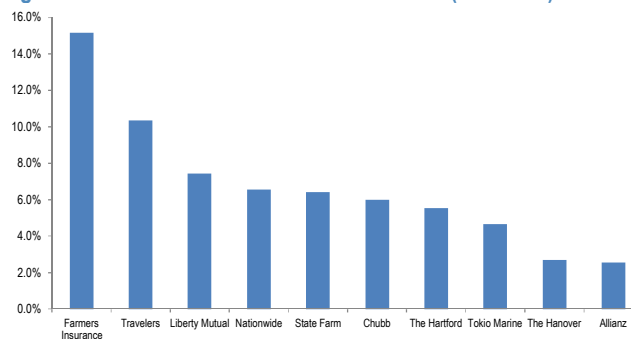
⁶ Ibid.

Figure 18: Homeowners' Multi-Peril Market Share (California)



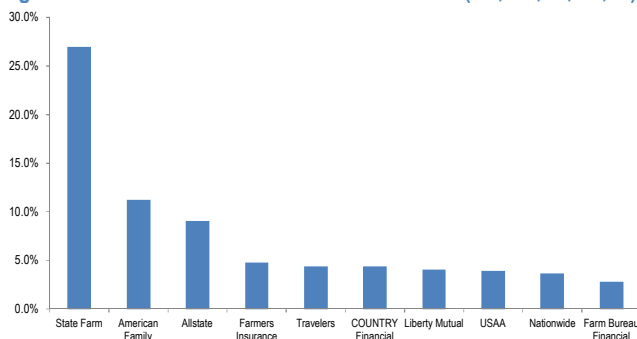
Source: SNL Financial.

Figure 19: Commercial Multi-Peril Market Share (California)



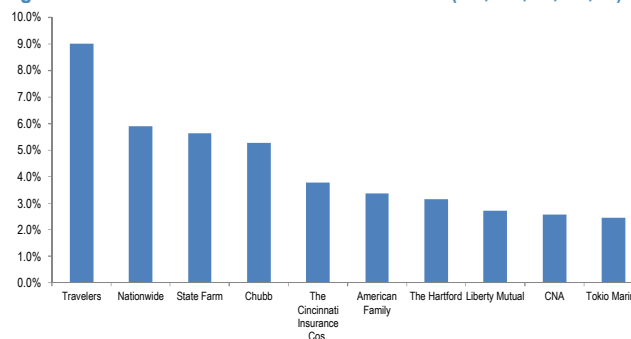
Source: SNL Financial.

Figure 20: Homeowners' Multi-Peril Market Share (NE, KS, IA, WI, IL)



Source: SNL Financial.

Figure 21: Commercial Multi-Peril Market Share (NE, KS, IA, WI, IL)



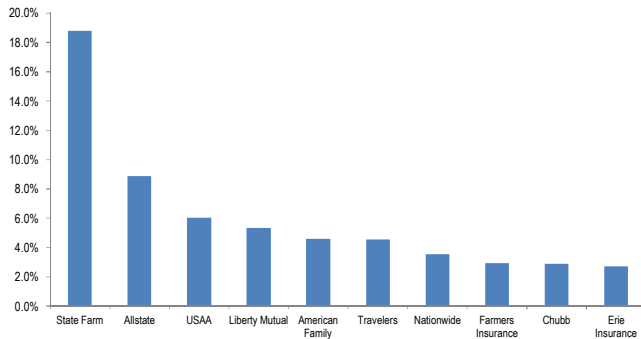
Source: SNL Financial.

Figure 22: February Notable Catastrophe Loss Events

Date Range	Event Type	Location	Est. Economic Loss (\$)	Est. Insured Loss (\$)
Feb. 12th - Feb. 20th	Winter Weather	Plains, Southeast, Mid-Atlantic, Northwest	\$10 billion - \$20 billion	\$10 billion - \$20 billion
Feb. 25th - Feb. 26th	Severe Weather	Texas	\$100+ million	\$50+ million
Feb. 25th - Mar. 1st	Flooding	Plains, Southeast, Mid-Atlantic	\$100+ million	N/A

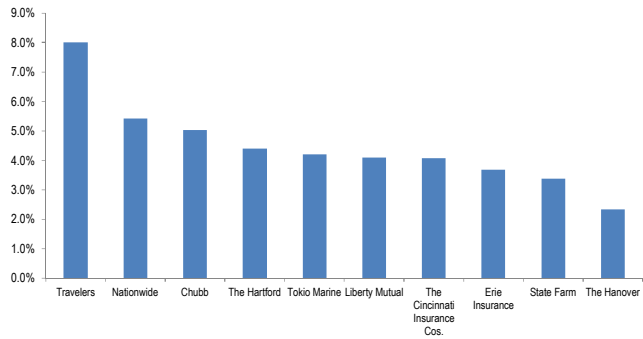
Source: Aon Benfield.

Figure 23: Homeowners' Multi-Peril Market Share (Plains, SE, Mid-Atl., NW)



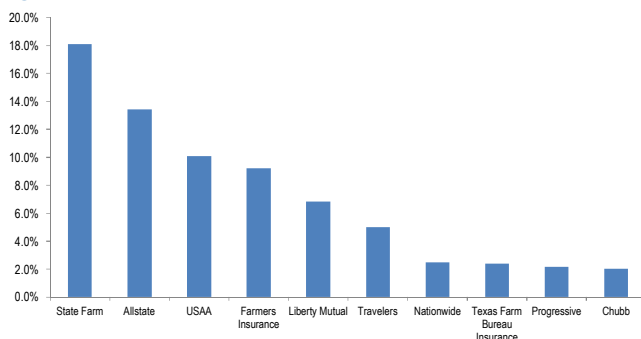
Source: SNL Financial.

Figure 24: Commercial Multi-Peril Market Share (Plains, SE, Mid-Atl., NW)



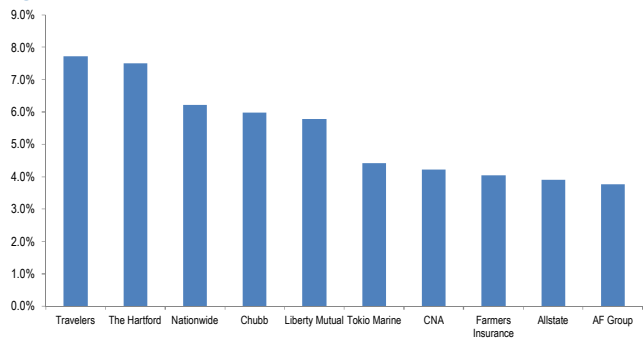
Source: SNL Financial.

Figure 25: Homeowners' Multi-Peril Market Share (Texas)



Source: SNL Financial.

Figure 26: Commercial Multi-Peril Market Share (Texas)



Source: SNL Financial.

Low NII Yields Show No Reprieve in 1Q21

We expect our small cap P&C underwriters to continue facing headwinds from low interest rates and weak net investment yields during 1Q21. While Treasury yields rose slightly during 1Q21, this was somewhat mitigated by the impact of compressed credit spreads. That said, we estimate that new money yields in insurers' portfolios increased slightly during 1Q but remain below yields a year ago. Given our expectation of a gradual economic recovery and continued actions by the Federal Reserve to support credit markets, we believe that interest rates are more likely to remain depressed, which bodes poorly for near-term net investment income.

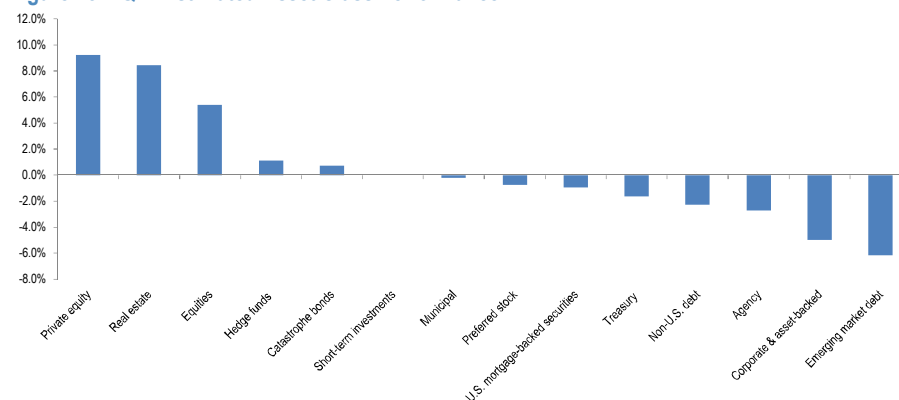
Figure 27: Investment Portfolio Detail

Data as of 4Q20

	Commercial							Average	Small Cap		Average	Personal		Average
	ACGL	AIG	CB	HIG	RNR	TIG	TRV		KNSL	PLMR		ALL	PGR	
Total Securities														
U.S. Government & Agency	19%	2%	3%	2%	24%	3%	3%	8%	0%	4%	2%	3%	27%	15%
Other Governments	8%	4%	10%	2%	2%	0%	1%	4%	0%	0%	0%	1%	0%	1%
State & Municipal	3%	4%	9%	17%	0%	7%	43%	12%	18%	1%	10%	10%	7%	8%
Mortgage & Asset-Backed Securities	9%	19%	17%	23%	14%	27%	4%	16%	41%	19%	30%	1%	22%	12%
Public Utilities	0%	6%	0%	4%	0%	20%	5%	5%	0%	0%	0%	7%	1%	4%
Corporate Debt	28%	40%	44%	32%	21%	14%	31%	30%	25%	54%	39%	47%	21%	34%
Total Equity Instruments	5%	0%	3%	3%	3%	1%	1%	2%	10%	5%	8%	5%	12%	8%
Other Investments	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	5%	0%	0%	0%
Total Securities as % of Total Portfolio	73%	76%	87%	82%	64%	72%	87%	77%	94%	93%	93%	75%	89%	82%
Other Investment Assets														
Mortgage Loans	0%	12%	0%	8%	0%	0%	0%	3%	0%	0%	0%	4%	0%	2%
Policy Loans	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Total Investment in Real Estate	0%	2%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Short-term Investments	8%	5%	4%	6%	22%	1%	6%	7%	0%	0%	0%	8%	11%	10%
Investment in Partnerships	7%	3%	8%	4%	0%	0%	3%	3%	0%	0%	0%	8%	0%	4%
Other Investments	9%	0%	1%	0%	6%	0%	1%	2%	0%	0%	0%	2%	0%	1%
Cash and Cash Equivalents	3%	1%	1%	0%	8%	27%	1%	6%	6%	7%	7%	0%	0%	0%
Other Investment Assets as % of Total Portfolio	27%	24%	13%	18%	36%	28%	13%	23%	6%	7%	7%	25%	11%	18%
Fixed Income Portfolio Rating														
AAA/AA/A	80%	59%	67%	73%	78%	92%	85%	76%	82%	75%	78%	89%	76%	93%
BBB	14%	30%	16%	23%	12%	7%	13%	17%	15%	22%	18%		22%	
Below-Investment-Grade/Not Rated	6%	11%	17%	4%	10%	1%	2%	7%	4%	3%	3%	11%	2%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other Portfolio Metrics														
Duration of Fixed-maturity Investments (years)	3.0	3.3	4.0	4.9	2.9	3.9	4.0	3.7	4.3	4.0	4.1	5.3	2.9	4.1
Portfolio Leverage (T. Fixed Income / T. Equity)	1.5	3.7	1.8	2.4	1.9	1.0	2.5	2.1	1.9	1.1	1.5	2.3	2.5	2.4
Portfolio Leverage (T. Investments / T. Equity)	2.2	5.5	2.0	3.0	2.9	1.0	2.9	2.8	2.1	1.2	1.6	3.3	2.8	3.1
Total Portfolio (\$ billions)	26.9	360.7	118.7	56.5	20.6	0.4	84.4		1.2	0.4		94.2	47.5	
Total Equity (\$ billions)	12.3	65.9	59.4	18.6	7.0	0.4	29.2		0.6	0.4		28.2	17.0	

Source: SNL Financial and Company reports.

Figure 28: 1Q21 Estimated Asset Class Performance



Source: Bloomberg Finance L.P.

Table 7: P&C Insurance 1Q21 Stock Performance

Company	% Price Increase
Commercial P&C Insurers and Reinsurers	
ACGL	6.4%
AIG	22.1%
CB	2.6%
HIG	36.4%
TRV	7.1%
RE	5.9%
RNR	-3.4%
Small Cap Insurers	
KNSL	-17.7%
PLMR	-24.5%
TIG	23.3%
WTRE	0.0%
Personal Lines	
ALL	4.5%
KMPR	3.8%
MCY	16.5%
PGR	-3.3%
Commercial Brokers	
AJG	0.9%
AON	8.9%
BRO	-3.6%
MMC	4.1%
WLTW	8.6%
Small Cap Brokers	
BRP	-9.1%
GSHD	-14.1%
S&P 500	5.8%
S&P Financial	16.0%

Source: Bloomberg Finance L.P.

Goosehead

GSHD First Quarter 2021 Outlook

GSHD 1Q21 Earnings Release

Date: TBD

GSHD 1Q21 Earnings Conference Call

Date: TBD

Time: TBD

Dial-In: TBD

Passcode: TBD

Goosehead (GSHD: Overweight, -14.1% during 1Q vs +5.8% S&P 500). GSHD traded with significant volatility during 1Q21. Through the first 33 trading sessions of the year, the stock appreciated by roughly 40%. Subsequently, the stock declined by roughly 40% during the remaining 28 trading sessions of 1Q21. Although GSHD's stock was likely impacted by the broader market rotation out of growth into value, we believe that some investors might have been disappointed by management's FY21 revenue guidance. During GSHD's 4Q20 earnings release, management provided initial guidance for FY21 total written premiums placed and total revenue growth. Total written premiums placed are expected to range between \$1.48 billion and \$1.55 billion (38%-44% organic growth), and total revenue is expected to range between \$144 million and \$155 million (23%-32% organic growth). We believe that some investors might be concerned that FY21 revenue guidance (28% at the midpoint) was a steeper-than-expected decline from FY20's 51% organic revenue growth. However, this fails to properly appreciate the significant impact that contingent commissions had on revenue growth during FY20. Contingent commissions during 2021 are expected to return to normalized levels as personal auto frequency trends continue to rebound from COVID-induced historic lows during 2020. The key leading indicator for investors to monitor is total written premiums placed. During 2020, total written premiums placed grew by 45%, and the midpoint of management's FY21 guidance (41%) is only a gradual moderation from 2020 levels. Consequently, we continue to view GSHD's robust growth story as intact and believe that GSHD is well suited to benefit from evolving trends within personal lines distribution, while also leveraging their leading technology platform and capabilities alongside steady operational execution.

Table 8: GSHD 1Q20 Estimates

\$ millions, except per share amounts			
	1Q21E	1Q20A	Est. % Chg y/y
Total Core Revenue	27.0	18.2	48.7%
Total Cost Recovery Revenue	1.5	1.1	34.9%
Total Ancillary Revenue	0.3	1.1	-74.6%
Total Revenue	28.9	20.4	41.3%
EBITDA	2.2	1.2	78.6%
EBITDA margin	7.7%	6.1%	N/A
Net Income	0.2	(0.2)	-260.1%
Net EPS	\$0.01	-\$0.01	-223.3%
Adjusted EPS	\$0.05	\$0.00	1238.0%
Total Written Premium (in thousands)	\$306,216	\$214,137	43.0%

Source: J.P. Morgan estimates, Company data.

Kinsale

KNSL First Quarter 2021 Outlook

KNSL 1Q21 Earnings Release

Date: TBD

KNSL 1Q21 Earnings Conference Call

Date: TBD

Time: TBD

Dial-In: TBD

Passcode: TBD

Kinsale (KNSL: Overweight, -17.7% during 1Q vs +5.8% S&P 500). We believe that KNSL's 1Q21 underperformance was driven by the market's broader rotation out of growth into value stocks and management's conservative commentary during their 4Q20 earnings call. Although 4Q20 results significantly exceeded our estimates (\$1.14A vs. \$0.75E) along with consensus, management mostly attributed KNSL's excellent 4Q20 attritional loss ratio to one-time items, while the company's premium growth outlook was reserved. We believe that the impact of robust pricing improvements over the past 2-3 years, in combination with KNSL's conservative underwriting philosophy, will eventually have to materialize through consistently improving attritional loss ratios or better-than-expected favorable prior-year reserve development over time. In addition, despite our expectation for premium growth to moderate from 2020, we continue to project that KNSL will achieve strong, industry-leading premium growth in the near term.

We expect that KNSL will continue to leverage its 2020 follow-on offering to capture attractive growth opportunities in an E&S market that continues to benefit from strong pricing trends, well in excess of what has been observed in the admitted market.

Table 9: KNSL 1Q21 Estimates

\$ millions, except per share amounts			
	1Q21E	1Q20A	Est. % Chg y/y
Net premium written	\$141.5	\$108.1	31.0%
Net investment income	\$6.7	\$6.0	12.4%
Loss and loss adjustment expense ratio ex cats & PYD	63.5%	63.1%	NM
Catastrophe losses	1.5%	0.1%	NM
Prior year development (favorable)/unfavorable	-2.5%	-3.4%	NM
Loss and loss adjustment expense ratio	62.5%	59.9%	NM
Operating expense ratio	23.0%	24.0%	NM
Combined ratio	85.5%	83.9%	NM
Combined ratio ex cats & PYD	86.5%	87.2%	NM
Operating EPS	\$0.90	\$0.76	18.0%
Operating ROE	14.3%	17.1%	NM
Share repurchases	\$0	\$0	NM
Book value	\$26.13	\$18.03	44.9%

Source: J.P. Morgan estimates, Company data.

Palomar

PLMR First Quarter 2021 Outlook

PLMR 1Q21 Earnings Release

Date: TBD

PLMR 1Q21 Earnings Conference Call

Date: TBD

Time: TBD

Dial-In: TBD

Passcode: TBD

Palomar (PLMR: Overweight, -24.5% during 1Q vs +5.8% S&P 500). PLMR's stock has struggled (down roughly 40%) since the company's 3Q20 catastrophe loss preannouncement. As we've previously discussed, the catastrophe losses of 2H20 drove management to make amendments to PLMR's reinsurance program, which had previously mostly controlled for severity versus frequency. Management has significantly reduced earnings volatility by adjusting their business mix and Gulf Coast exposure, along with amending their reinsurance program to appropriately control for increased frequency risk. We estimate that PLMR's recent actions will dramatically reduce the company's loss exposure and "collar" an earnings/ROE range going forward.

In addition, the company's recently announced 2-year, \$40 million share repurchase program leads us to believe that management is confident in its capital position, while also viewing its shares as significantly undervalued. During the repurchase announcement, management also reiterated their FY21 adjusted net income guidance range of \$62 million to \$67 million. We view this reiteration as critical, because it incorporates potential 1Q21 claims from Winter Storm Uri and appears to support management's assertion that February snowstorms will be a manageable event. We believe this could be the initial steps in restoring the market's confidence in PLMR's ability to successfully execute its specialty property go-to-market strategy.

In 2021, we anticipate that management will continue to deploy capital raised during 2020 to capture attractive specialty property E&S opportunities via their newly launched E&S platform. We expect that PLMR's stock will continue recovering as management's evolved execution strategy unfolds throughout the year.

Table 10: PLMR 1Q21 Estimates

\$ millions, except per share amounts			
	1Q21E	1Q20A	Est. % Chg y/y
Gross premium written	\$96.5	\$71.5	35.0%
Net premium written	\$57.9	\$42.0	37.9%
Net investment income	\$2.3	\$2.0	13.0%
Loss and loss adjustment expense ratio ex cats & PYD	5.0%	6.2%	NM
Mini-CAT/PCS & major events	5.0%	0.0%	NM
Prior year development (favorable)/unfavorable	-0.5%	-0.9%	NM
Loss and loss adjustment expense ratio	9.5%	5.4%	NM
Operating expense ratio	56.2%	58.2%	NM
Combined ratio	65.7%	63.6%	NM
Combined ratio ex cats & PYD	61.2%	64.4%	NM
Adjusted Net Income	\$14.2	\$12.3	15.5%
Adjusted EPS	\$0.55	\$0.50	10.8%
Adjusted ROE	15.4%	20.6%	NM
Share repurchases	\$0	\$0	NM
Tangible shareholders' equity	\$366.4	\$260.1	40.9%

Source: J.P. Morgan estimates, Company data.

Goosehead

Overweight

Company Data	
Shares O/S (mn)	37
52-week range (\$)	174.80-36.86
Market cap (\$ mn)	3,938.90
Exchange rate	1.00
Free float(%)	91.5%
3M - Avg daily vol (mn)	0.15
3M - Avg daily val (\$ mn)	20.0
Volatility (90 Day)	60
Index	RUSSELL
	2000
BBG BUY HOLD SELL	4 2 0

Goosehead Insurance (GSHD;GSHD US)

Year-end Dec (\$)	FY19A	FY20A	FY21E (Prev)	FY21E (Curr)	FY22E (Prev)	FY22E (Curr)	FY23E
Net revenue (\$ mn)	84	117	155	153	218	229	-
Adj. net income (\$ mn)	6	13	18	17	32	32	-
Net margin	-	-	-	-	-	-	-
Adj. EPS (\$)	0.40	0.68	0.85	0.80	1.30	1.30	-
BBG EPS (\$)	0.38	0.72	-	0.84	-	1.38	-
Reported EPS (\$)	0.33	0.50	0.65	0.60	1.06	1.06	-
Adj. P/E	268.9	156.5	125.5	134.2	82.7	82.2	-
Dividend yield	0.4%	1.1%	0.0%	0.0%	0.0%	0.0%	-
P/ BV	NM	NM	254.4	280.8	76.3	77.8	-
ROE	17.4%	(181.4%)	874.3%	1045.4%	145.0%	151.1%	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Goosehead Insurance (Overweight; Price Target: \$145.00)

Investment Thesis

GSHD is the only publicly traded personal lines insurance broker. Personal lines insurance distribution is a highly fragmented market that places approximately \$360 billion of premiums annually while also benefiting from adequate industry pricing dynamics. GSHD's unique business model, which separates sales and service, allows it to attract talented and ambitious new agents, resulting in best-in-class organic revenue growth and high-quality service.

Valuation

GSHD's peer group now includes a subset of high growth, tech enabled personal lines insurance platforms including Lemonade (LMND: Not Covered), Root (ROOT: Not Covered) and Metromile (MILE: Not Covered). These companies trade at significant valuation premiums relative to their incumbent underwriting and brokerage peers, reflecting industry-leading growth rates and market expectations for sustained high growth. Additionally, since many of these platforms aren't generating consistent profitability, we view price-to-sales as the best valuation metric across the various platforms represented. GSHD, LMND and ROOT currently trade at 17x, 31x and 5x price-to-YE22 sales, respectively. We believe that GSHD should trade at a valuation discount to LMND due to lower projected growth rates. However, this discount should be tempered by the fact that GSHD retains minimal balance sheet risk relative to the other underwriters in this high growth subset of insurance platforms. Our Dec 21 price target of \$145 is based on 24x our YE22 revenue estimate of \$229mn.

Risks to Rating and Price Target

GSHD is led by Mark Jones, who has been CEO since inception in 2003. While Mr. Jones had no prior insurance experience outside of GSHD, his expertise in identifying, recruiting, and hiring talent has been key to GSHD's growth strategy. GSHD competes against smaller local independent agents, captive agencies owned

by carriers (e.g., Allstate and State Farm), and direct-to-customer carriers (e.g., Progressive and Berkshire-owned GEICO). Direct purchasing of personal lines insurance over the phone or internet is the fastest growing channel, and the risk of disintermediation exists.

Kinsale

Overweight

Company Data	
Shares O/S (mn)	23
52-week range (\$)	252.70-97.84
Market cap (\$ mn)	3,750.40
Exchange rate	1.00
Free float(%)	93.9%
3M - Avg daily vol (mn)	0.20
3M - Avg daily val (\$ mn)	36.6
Volatility (90 Day)	43
Index	RUSSELL
	2000
BBG BUY HOLD SELL	5 2 0

Kinsale Capital (KNSL;KNSL US)

Year-end Dec (\$)	FY19A	FY20A	FY21E (Prev)	FY21E (Curr)	FY22E	FY23E
NEP (Premium) (\$ mn)	283	413	574	568	-	-
Operating income (\$ mn)	76	101	105	106	-	-
Adj. net income (\$ mn)	53	72	87	88	-	-
Combined ratio	84.7%	86.8%	86.4%	86.2%	-	-
Adj. EPS (\$)	2.41	3.16	3.75	3.75	-	-
BBG EPS (\$)	2.41	2.82	-	3.93	4.68	4.50
Reported EPS (\$)	2.41	3.16	3.75	3.75	-	-
DPS (\$)	0.32	0.36	0.44	0.44	-	-
Dividend yield	0.2%	0.2%	0.3%	0.3%	-	-
Adj. P/E	68.5	52.1	44.0	43.9	-	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Kinsale Capital (Overweight; Price Target: \$230.00)

Investment Thesis

KNSL is the only publicly traded P&C insurer focused exclusively on E&S insurance. This market has generated better returns than the overall P&C market, reflecting its less commoditized nature and superior pricing power. As a result, E&S companies tend to trade at a premium valuation. KNSL also focuses on smaller accounts, which are less competitive than large accounts. Consequently, KNSL appears poised to gain further market share as it leverages its technology, speed to market, low-cost expense advantage, and underwriting expertise.

Valuation

KNSL is currently trading at 6.5x tangible book value. While this appears expensive, we believe KNSL's valuation is warranted because of the company's strong top-line growth, singular E&S focus and higher ROE relative to its specialty peers. Our Dec 21 price target of \$230 is based off an 8.0x multiple on our YE21E tangible book value of \$29/share. The company remains well positioned to benefit from broader P&C industry rate improvements as many companies attempt to right-size their portfolios following years of inadequately priced underwriting.

Risks to Rating and Price Target

The P&C insurance industry is currently benefitting from broad rate firming, and pricing in E&S lines has been one of the primary beneficiaries. However, abundant capital remains in the industry, and if companies believe that they have adequately adjusted pricing on previously underpriced lines of business, carriers could renew price competition to attract and maintain market share. If this were to happen, KNSL could potentially be exposed to soft pricing and worse than expected premium growth, which would drive ROE and valuation multiple contraction.

Palomar

Overweight

Company Data	
Shares O/S (mn)	26
52-week range (\$)	121.87-47.16
Market cap (\$ mn)	1,711.25
Exchange rate	1.00
Free float(%)	94.6%
3M - Avg daily vol (mn)	0.24
3M - Avg daily val (\$ mn)	20.9
Volatility (90 Day)	57
Index	RUSSELL
	2000
BBG BUY HOLD SELL	7 1 0

Palomar Holdings, Inc. (PLMR;PLMR US)

Year-end Dec (\$)	FY19A	FY20A	FY21E (Prev)	FY21E (Curr)	FY22E (Prev)	FY22E (Curr)	FY23E
NEP (Premium) (\$ mn)	100	155	206	206	275	275	-
Operating income (\$ mn)	15	5	82	80	98	99	-
Adj. net income (\$ mn)	38	9	65	63	78	78	-
Combined ratio	91.3%	102.5%	64.8%	65.7%	67.8%	67.5%	-
Adj. EPS (\$)	1.73	0.35	2.50	2.45	3.00	3.05	-
BBG EPS (\$)	1.72	0.35	-	2.26	-	2.90	3.40
Reported EPS (\$)	0.49	0.24	2.50	2.45	3.00	3.05	-
DPS (\$)	0.00	0.00	0.00	0.00	0.00	0.00	-
Dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
Adj. P/E	38.6	193.6	26.8	27.3	22.3	22.0	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Palomar Holdings, Inc. (Overweight; Price Target: \$120.00)

Investment Thesis

Palomar focuses on specialty property underwriting with an emphasis on products and geographies for which many carriers have limited appetite. Earthquake risks accounted for approximately two-thirds of Palomar's 2018 gross written premium. In addition, Palomar has developed a proprietary pricing model for the markets in which it competes, reflecting customized modeling tools that were built in conjunction with exhaustive geospatial and actuarial data. Palomar's pricing model allows it to be more competitive in the market versus other carriers, which have yet to show a willingness or desire to thoughtfully develop earthquake pricing models that more accurately reflect the diversity of risks associated with different building structures and geographies. Lastly, Palomar's reinsurance program provides sizable protection against the company's exposure to low-frequency/high-severity risks such as earthquakes. The company's reinsurance program includes excess of loss, quota share, insurance-linked securities, and per risk reinsurance protection from over 80 different reinsurers and capital market providers. The company's retention for a single event (up to \$1.4bn in losses) is capped at \$10mn, which helps minimize the payback period associated with retention on large loss events. The features of Palomar's reinsurance program work collectively to help minimize the company's exposure to large loss events in addition to helping mitigate earnings volatility.

Valuation

Our Dec 21 price target of \$120 is based off a 7.0x multiple on our YE21E tangible book value of approximately \$17 per share. PLMR currently trades at 4.9x tangible book value and 27x 2021E EPS, relative to the commercial (re)insurers in our coverage universe, which trade at 1.2x and 14.2x, respectively.

Risks to Rating and Price Target

Palomar focuses on underwriting low-frequency/high-severity risks, and approximately 60% of its 2020 GWP was earthquake products. While the company

utilizes a robust reinsurance program to help mitigate the risks associated with earthquake underwriting, the accuracy of PLMR's potential loss projections are difficult to know with certainty given the low frequency of earthquakes and limited available data. The actual outcome and subsequent losses associated with a major earthquake event could significantly exceed the company's estimates, and Palomar's reinsurance program, while robust, could prove insufficient.

Analyst Certification: The Research Analyst(s) denoted by an “AC” on the cover of this report certifies (or, where multiple Research Analysts are primarily responsible for this report, the Research Analyst denoted by an “AC” on the cover or within the document individually certifies, with respect to each security or issuer that the Research Analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect the Research Analyst’s personal views about any and all of the subject securities or issuers; and (2) no part of any of the Research Analyst’s compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the Research Analyst(s) in this report. For all Korea-based Research Analysts listed on the front cover, if applicable, they also certify, as per KOFIA requirements, that the Research Analyst’s analysis was made in good faith and that the views reflect the Research Analyst’s own opinion, without undue influence or intervention.

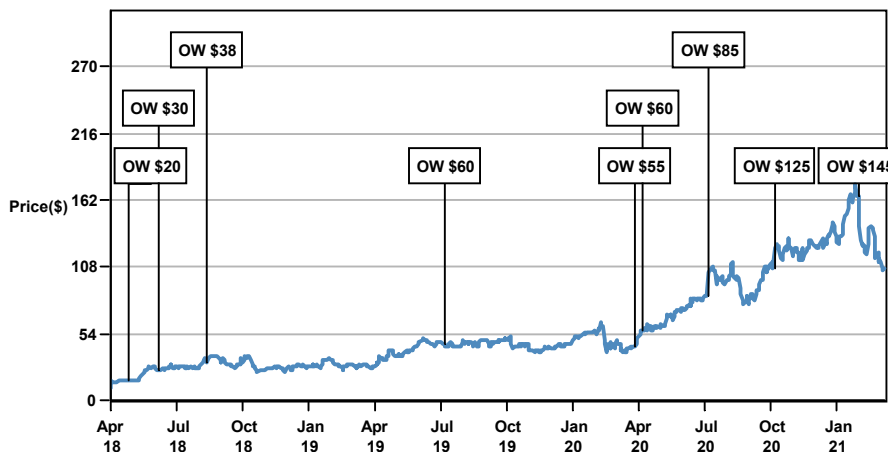
All authors named within this report are Research Analysts unless otherwise specified. In Europe, Sector Specialists (Sales and Trading) may be shown on this report as contacts but are not authors of the report or part of the Research Department.

Important Disclosures

- **Market Maker:** J.P. Morgan Securities LLC makes a market in the securities of Goosehead, Kinsale, Palomar.
- **Market Maker/ Liquidity Provider:** J.P. Morgan is a market maker and/or liquidity provider in the financial instruments of/related to Goosehead, Kinsale, Palomar.
- **Manager or Co-manager:** J.P. Morgan acted as manager or co-manager in a public offering of securities or financial instruments (as such term is defined in Directive 2014/65/EU) for Kinsale, Palomar within the past 12 months.
- **Client:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients: Goosehead, Kinsale, Palomar.
- **Client/Investment Banking:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as investment banking clients: Goosehead, Kinsale, Palomar.
- **Client/Non-Investment Banking, Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients, and the services provided were non-investment-banking, securities-related: Goosehead, Kinsale.
- **Client/Non-Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients, and the services provided were non-securities-related: Goosehead, Kinsale.
- **Investment Banking (past 12 months):** J.P. Morgan received in the past 12 months compensation for investment banking services from Goosehead, Kinsale, Palomar.
- **Investment Banking (next 3 months):** J.P. Morgan expects to receive, or intends to seek, compensation for investment banking services in the next three months from Goosehead, Kinsale, Palomar.
- **Non-Investment Banking Compensation:** J.P. Morgan has received compensation in the past 12 months for products or services other than investment banking from Goosehead, Kinsale.
- **Debt Position:** J.P. Morgan may hold a position in the debt securities of Goosehead, Kinsale, Palomar, if any.

Company-Specific Disclosures: Important disclosures, including price charts and credit opinion history tables, are available for compendium reports and all J.P. Morgan–covered companies by visiting <https://www.jpmm.com/research/disclosures>, calling 1-800-477-0406, or e-mailing research.disclosure.inquiries@jpmorgan.com with your request. J.P. Morgan’s Strategy, Technical, and Quantitative Research teams may screen companies not covered by J.P. Morgan. For important disclosures for these companies, please call 1-800-477-0406 or e-mail research.disclosure.inquiries@jpmorgan.com.

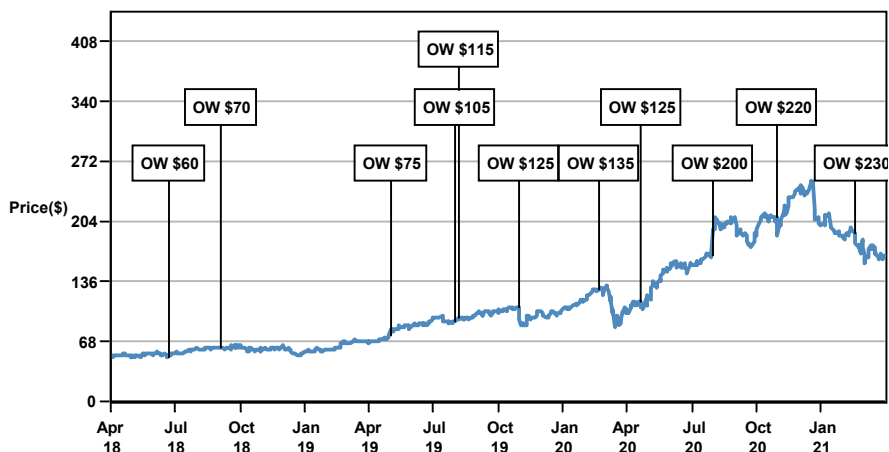
Goosehead (GSHD, GSHD US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage May 22, 2018. All share prices are as of market close on the previous business day.

Date	Rating	Price (\$)	Price Target (\$)
22-May-18	OW	16.20	20
02-Jul-18	OW	24.96	30
07-Sep-18	OW	30.31	38
02-Aug-19	OW	45.02	60
20-Apr-20	OW	43.04	55
01-May-20	OW	56.14	60
31-Jul-20	OW	83.89	85
30-Oct-20	OW	107.03	125
24-Feb-21	OW	165.40	145

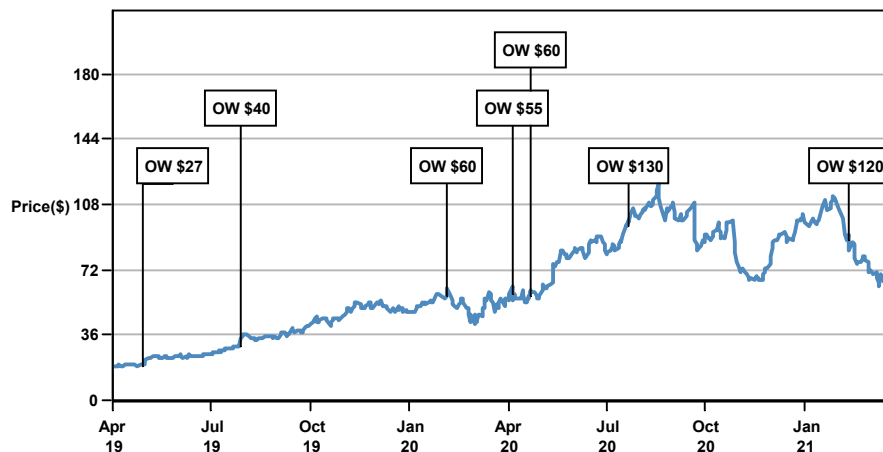
Kinsale (KNSL, KNSL US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Aug 22, 2016. All share prices are as of market close on the previous business day.

Date	Rating	Price (\$)	Price Target (\$)
22-Jun-18	OW	50.95	60
05-Sep-18	OW	60.88	70
03-May-19	OW	74.14	75
02-Aug-19	OW	89.98	105
08-Aug-19	OW	95.46	115
01-Nov-19	OW	105.72	125
20-Feb-20	OW	127.74	135
20-Apr-20	OW	114.01	125
31-Jul-20	OW	165.91	200
30-Oct-20	OW	208.26	220
18-Feb-21	OW	190.72	230

Palomar (PLMR, PLMR US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage May 13, 2019. All share prices are as of market close on the previous business day.

Date	Rating	Price (\$)	Price Target (\$)
13-May-19	OW	19.11	27
12-Aug-19	OW	29.73	40
18-Feb-20	OW	57.83	60
20-Apr-20	OW	58.19	55
06-May-20	OW	57.56	60
05-Aug-20	OW	95.45	130
24-Feb-21	OW	88.20	120

The chart(s) show J.P. Morgan's continuing coverage of the stocks; the current analysts may or may not have covered it over the entire period.

J.P. Morgan ratings or designations: OW = Overweight, N= Neutral, UW = Underweight, NR = Not Rated

Explanation of Equity Research Ratings, Designations and Analyst(s) Coverage Universe:

J.P. Morgan uses the following rating system: Overweight [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Neutral [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Underweight [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Not Rated (NR): J.P. Morgan has removed the rating and, if applicable, the price target, for this stock because of either a lack of a sufficient fundamental basis or for legal, regulatory or policy reasons. The previous rating and, if applicable, the price target, no longer should be relied upon. An NR designation is not a recommendation or a rating. In our Asia (ex-Australia and ex-India) and U.K. small- and mid-cap equity research, each stock's expected total return is compared to the expected total return of a benchmark country market index, not to those analysts' coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying analyst's coverage universe can be found on J.P. Morgan's research website, www.jpmorganmarkets.com.

Coverage Universe: Cornelius, Keith: Goosehead (GSHD), Kinsale (KNSL), Palomar (PLMR)

J.P. Morgan Equity Research Ratings Distribution, as of January 01, 2021

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	48%	39%	13%
IB clients**	53%	49%	35%
JPMS Equity Research Coverage*	45%	40%	14%
IB clients**	78%	69%	51%

*Please note that the percentages might not add to 100% because of rounding.

**Percentage of subject companies within each of the "buy," "hold" and "sell" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.

For purposes only of FINRA ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above. This information is current as of the end of the most recent calendar quarter.

Equity Valuation and Risks: For valuation methodology and risks associated with covered companies or price targets for covered companies, please see the most recent company-specific research report at <http://www.jpmorganmarkets.com>, contact the primary analyst or your J.P. Morgan representative, or email research.disclosure.inquiries@jpmorgan.com. For material information about the proprietary models used, please see the Summary of Financials in company-specific research reports and the Company Tearsheets, which are

available to download on the company pages of our client website, <http://www.jpmorganmarkets.com>. This report also sets out within it the material underlying assumptions used.

Analysts' Compensation: The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

Other Disclosures

J.P. Morgan is a marketing name for investment banking businesses of JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide.

All research material made available to clients are simultaneously available on our client website, J.P. Morgan Markets, unless specifically permitted by relevant laws. Not all research content is redistributed, e-mailed or made available to third-party aggregators. For all research material available on a particular stock, please contact your sales representative.

Any long form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material are Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

Options and Futures related research: If the information contained herein regards options- or futures-related research, such information is available only to persons who have received the proper options or futures risk disclosure documents. Please contact your J.P. Morgan Representative or visit <https://www.theocc.com/components/docs/riskstoc.pdf> for a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options or http://www.finra.org/sites/default/files/Security_Futures_Risk_Disclosure_Statement_2018.pdf for a copy of the Security Futures Risk Disclosure Statement.

Changes to Interbank Offered Rates (IBORs) and other benchmark rates: Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform. For more information, please consult: https://www.jpmorgan.com/global/disclosures/interbank_offered_rates

Private Bank Clients: Where you are receiving research as a client of the private banking businesses offered by JPMorgan Chase & Co. and its subsidiaries ("J.P. Morgan Private Bank"), research is provided to you by J.P. Morgan Private Bank and not by any other division of J.P. Morgan, including, but not limited to, the J.P. Morgan Corporate and Investment Bank and its Global Research division.

Legal entity responsible for the production and distribution of research: The legal entity identified below the name of the Reg AC Research Analyst who authored this material is the legal entity responsible for the production of this research. Where multiple Reg AC Research Analysts authored this material with different legal entities identified below their names, these legal entities are jointly responsible for the production of this research. Research Analysts from various J.P. Morgan affiliates may have contributed to the production of this material but may not be licensed to carry out regulated activities in your jurisdiction (and do not hold themselves out as being able to do so). Unless otherwise stated below, this material has been distributed by the legal entity responsible for production. If you have any queries, please contact the relevant Research Analyst in your jurisdiction or the entity in your jurisdiction that has distributed this research material.

Legal Entities Disclosures and Country-/Region-Specific Disclosures:

Argentina: JPMorgan Chase Bank N.A Sucursal Buenos Aires is regulated by Banco Central de la República Argentina ("BCRA"- Central Bank of Argentina) and Comisión Nacional de Valores ("CNV"- Argentinian Securities Commission) - ALYC y AN Integral N°51). **Australia:** J.P. Morgan Securities Australia Limited ("JPMSAL") (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by the Australian Securities and Investments Commission and is a Market, Clearing and Settlement Participant of ASX Limited and CHIX. This material is issued and distributed in Australia by or on behalf of JPMSAL only to "wholesale clients" (as defined in section 761G of the Corporations Act 2001). A list of all financial products covered can be found by visiting <https://www.jpmm.com/research/disclosures>. J.P. Morgan seeks to cover companies of relevance to the domestic and international investor base across all Global Industry Classification Standard (GICS) sectors, as well as across a range of market capitalisation sizes. If applicable, in the course of conducting public side due diligence on the subject company(ies), the Research Analyst team may at times perform such diligence through corporate engagements such as site visits, discussions with company representatives, management presentations, etc. Research issued by JPMSAL has been prepared in accordance with J.P. Morgan Australia's Research Independence Policy which can be found at the following link: [J.P. Morgan Australia - Research Independence Policy](#). **Brazil:** Banco J.P. Morgan S.A. is regulated by the Comissão de Valores Mobiliários (CVM) and by the Central Bank of Brazil. Ombudsman J.P. Morgan: 0800-7700847 / ouvidoria.jp.morgan@jpmorgan.com. **Canada:** J.P. Morgan Securities Canada Inc. is a registered investment dealer, regulated by the Investment Industry Regulatory Organization of Canada and the Ontario Securities Commission and is the participating member on Canadian exchanges. This material is distributed in Canada by or on behalf of J.P.Morgan Securities Canada Inc. **Chile:** Inversiones J.P. Morgan Limitada is an unregulated entity incorporated in Chile. **China:** J.P. Morgan Securities (China) Company Limited has been approved by CSRC to conduct the securities investment consultancy business. **Dubai:** JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - The Gate,

West Wing, Level 3 and 9 PO Box 506551, Dubai, UAE. This material has been distributed to persons regarded as professional clients or market counterparties as defined under the DFSA rules. **European Economic Area (EEA):** Unless specified to the contrary, research is distributed in the EEA by J.P. Morgan AG ("JPM AG"), which is a member of the Frankfurt Stock Exchange, is authorised by the European Central Bank ("ECB") and is regulated by the Federal Financial Supervisory Authority (BaFin). JPM AG is a company incorporated in the Federal Republic of Germany with a registered office at Taunustor 1, 60310 Frankfurt am Main, the Federal Republic of Germany. The material has been distributed in the EEA to persons regarded as professional investors (or equivalent) pursuant to Art. 4 para. 1 no. 10 and Annex II of MiFID II and its respective implementation in their home jurisdictions ("EEA professional investors"). This material must not be acted on or relied on by persons who are not EEA professional investors. Any investment or investment activity to which this material relates is only available to EEA relevant persons and will be engaged in only with EEA relevant persons. **Hong Kong:** J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong, and J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. JP Morgan Chase Bank, N.A., Hong Kong (CE Number AAL996) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission, is organized under the laws of the United States with limited liability. **India:** J.P. Morgan India Private Limited (Corporate Identity Number - U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai - 400098, is registered with the Securities and Exchange Board of India (SEBI) as a 'Research Analyst' having registration number INH000001873. J.P. Morgan India Private Limited is also registered with SEBI as a member of the National Stock Exchange of India Limited and the Bombay Stock Exchange Limited (SEBI Registration Number - INZ000239730) and as a Merchant Banker (SEBI Registration Number - MB/INM000002970). Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990 and Website: www.jpimipl.com. JPMorgan Chase Bank, N.A. - Mumbai Branch is licensed by the Reserve Bank of India (RBI) (Licence No. 53/ Licence No. BY.4/94; SEBI - IN/CUS/014/ CDSL : IN-DP-CDSL-444-2008/ IN-DP-NSDL-285-2008/ INBI00000984/ INE231311239) as a Scheduled Commercial Bank in India, which is its primary license allowing it to carry on Banking business in India and other activities, which a Bank branch in India are permitted to undertake. For non-local research material, this material is not distributed in India by J.P. Morgan India Private Limited. **Indonesia:** PT J.P. Morgan Sekuritas Indonesia is a member of the Indonesia Stock Exchange and is regulated by the OJK a.k.a. BAPEPAM LK. **Korea:** J.P. Morgan Securities (Far East) Limited, Seoul Branch, is a member of the Korea Exchange (KRX). JPMorgan Chase Bank, N.A., Seoul Branch, is licensed as a branch office of foreign bank (JPMorgan Chase Bank, N.A.) in Korea. Both entities are regulated by the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS). For non-macro research material, the material is distributed in Korea by or through J.P. Morgan Securities (Far East) Limited, Seoul Branch. **Japan:** JPMorgan Securities Japan Co., Ltd. and JPMorgan Chase Bank, N.A., Tokyo Branch are regulated by the Financial Services Agency in Japan. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X), which is a Participating Organization of Bursa Malaysia Berhad and holds a Capital Markets Services License issued by the Securities Commission in Malaysia. **Mexico:** J.P. Morgan Casa de Bolsa, S.A. de C.V. and J.P. Morgan Grupo Financiero are members of the Mexican Stock Exchange and are authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to "wholesale clients" (as defined in the Financial Advisers Act 2008). JPMSAL is registered as a Financial Service Provider under the Financial Service providers (Registration and Dispute Resolution) Act of 2008. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Philippines:** J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. **Russia:** CB J.P. Morgan Bank International LLC is regulated by the Central Bank of Russia. **Singapore:** This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 018/04/2020 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) [MCI (P) 052/09/2020], both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. As at the date of this material, JPMSS is a designated market maker for certain structured warrants listed on the Singapore Exchange where the underlying securities may be the securities discussed in this material. Arising from its role as a designated market maker for such structured warrants, JPMSS may conduct hedging activities in respect of such underlying securities and hold or have an interest in such underlying securities as a result. The updated list of structured warrants for which JPMSS acts as designated market maker may be found on the website of the Singapore Exchange Limited: <http://www.sgx.com>. **South Africa:** J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Board. **Taiwan:** J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material. **Thailand:** This material is issued and distributed in Thailand by JPMorgan Securities (Thailand)

Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission, and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. **UK:** Unless specified to the contrary, research is distributed in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. JPMS plc is registered in England & Wales No. 2711006, Registered Office 25 Bank Street, London, E14 5JP. This material is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. Research issued by JPMS plc has been prepared in accordance with JPMS plc's policy for prevention and avoidance of conflicts of interest related to the production of Research which can be found at the following link: [J.P. Morgan EMEA - Research Independence Policy](#). **U.S.:** J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its content.

General: Additional information is available upon request. The information in this material has been obtained from sources believed to be reliable. While all reasonable care has been taken to ensure that the facts stated in this material are accurate and that the forecasts, opinions and expectations contained herein are fair and reasonable, JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) make no representations or warranties whatsoever to the completeness or accuracy of the material provided, except with respect to any disclosures relative to J.P. Morgan and the Research Analyst's involvement with the issuer that is the subject of the material. Accordingly, no reliance should be placed on the accuracy, fairness or completeness of the information contained in this material. Any data discrepancies in this material could be the result of different calculations and/or adjustments. J.P. Morgan accepts no liability whatsoever for any loss arising from any use of this material or its contents, and neither J.P. Morgan nor any of its respective directors, officers or employees, shall be in any way responsible for the contents hereof, apart from the liabilities and responsibilities that may be imposed on them by the relevant regulatory authority in the jurisdiction in question, or the regulatory regime thereunder. Opinions, forecasts or projections contained in this material represent J.P. Morgan's current opinions or judgment as of the date of the material only and are therefore subject to change without notice. Periodic updates may be provided on companies/industries based on company-specific developments or announcements, market conditions or any other publicly available information. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or projections, which represent only one possible outcome. Furthermore, such opinions, forecasts or projections are subject to certain risks, uncertainties and assumptions that have not been verified, and future actual results or events could differ materially. The value of, or income from, any investments referred to in this material may fluctuate and/or be affected by changes in exchange rates. All pricing is indicative as of the close of market for the securities discussed, unless otherwise stated. Past performance is not indicative of future results. Accordingly, investors may receive back less than originally invested. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipients of this material must make their own independent decisions regarding any securities or financial instruments mentioned herein and should seek advice from such independent financial, legal, tax or other adviser as they deem necessary. J.P. Morgan may trade as a principal on the basis of the Research Analysts' views and research, and it may also engage in transactions for its own account or for its clients' accounts in a manner inconsistent with the views taken in this material, and J.P. Morgan is under no obligation to ensure that such other communication is brought to the attention of any recipient of this material. Others within J.P. Morgan, including Strategists, Sales staff and other Research Analysts, may take views that are inconsistent with those taken in this material. Employees of J.P. Morgan not involved in the preparation of this material may have investments in the securities (or derivatives of such securities) mentioned in this material and may trade them in ways different from those discussed in this material. This material is not an advertisement for or marketing of any issuer, its products or services, or its securities in any jurisdiction.

"Other Disclosures" last revised March 27, 2021.

Copyright 2021 JPMorgan Chase & Co. All rights reserved. This material or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.